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ELECTRICAL MORPHEUS

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ELECTRICAL MORPHEUS

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Considerable success with a new electrical sleeping machine is stated by its users in Graz, Austria. The machine produces impulses of 36 to 230 cps of duration 0.4 to 1.4 μ sec to 4 electrodes in a face mask; output maximum is 34 v. Daily treatment lasts from 1 to 2 hours and boasts good results for a wide spectrum of disorders.

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Aurhan

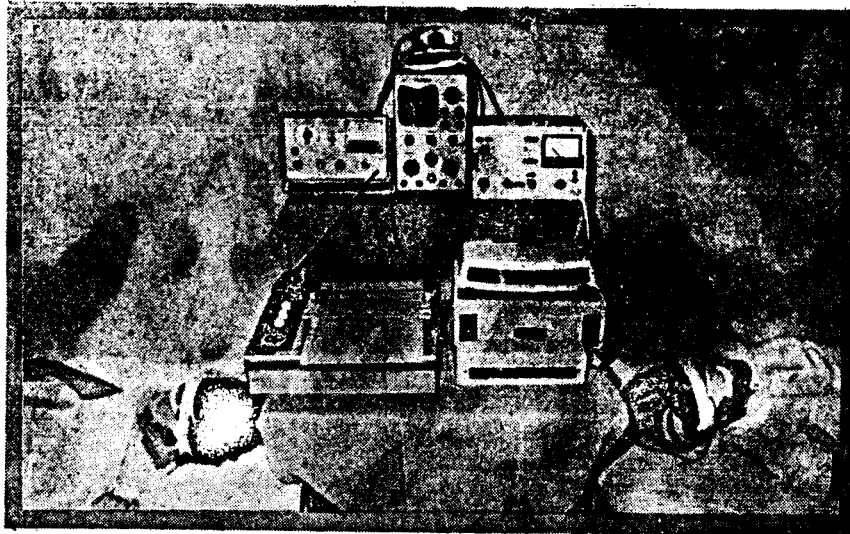
Graz, in Austria recently became a center for patients from all over the world suffering with insomnia. This new electrotherapy allows everyone to enjoy their normal sleep once again.

Insomnia has become a very widespread disease of our civilization. Daily it takes away the rest and recovery necessary to the organism. Thousands of people suffer sleepless nights, until they reach for sleeping tablets.

"I never suspected that so many people suffer from insomnia. Daily, patients from all over the world come to us for treatment. One patient even came from South America" - said the anesthesia specialist Dr. Wageneder, member of the Surgical Department of the University Clinic in Graz. His station for the electrical treatment of insomnia is the first in Europe. It has existed only a few months, and has already become a medical sensation.

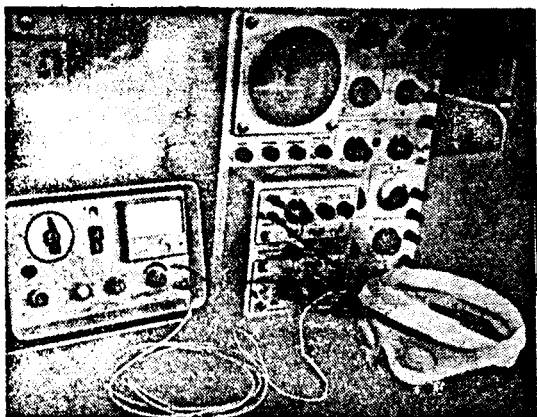
All patients in this hospital wear white half-masks over their eyes which are tied at the back of the head. The masks are connected with fine wires to machines the size of table radios. Patients jokingly refer to the machine as "Electrical Morpheus". These machines are the most important equipment in the station for the electrotherapy of insomnia.

*/Numbers in the margin indicate pagination of the original foreign text.



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The patients enjoy a healthy sleep which will refresh and rest them.



Electrodrom-electrical machine to induce sleep (left). It is connected with an oscillograph which shows the frequency, duration, and intensity of impulse.



Mask for sleeping in 3 versions: Model at left: designed by Soviet scientists; Middle: the Austrian prototype; Model at the right: now being used in Graz, Austria.

Nine cured out of ten

"About 90% of all the patients regain normal, healthy sleep after 3 weeks of treatment" said Dr. Wageneder and added: "We hope that in all of them

recovery will be permanent." The patients don't stay in the hospital. They bring only their sleeping clothes, and everyday after a few hours of electrical sleep go home or to the hotel.

As an anesthesia specialist Dr. Wageneder is principally interested in the problem of electronarcosis. Along these lines he has worked with different scientific groups in the U.S.S.R. and U.S.A. who did research in the same field. A firm that imports technical machines for the Eastern countries offered him an electrical sleeping machine of Soviet make called "Electrosom" for his experiments. The machine contained electronic tubes and worked with a vibrating generator. Dr. Wageneder asked the scientific group of the Technical High School in Graz for help. The technicians of the institution took the Soviet machine apart to study its functions. After studying it they worked out a transistorized machine as a sample, that worked on different principles. So it is they developed an electromachine for sleeping (Electrodrom) which is already being mass-produced.

A safe machine employing 34 volts

Instead of the vibrating generator used in the Soviet machine the technicians in Graz built in an unstable multivibrator which produces impulses of different frequencies and has changeable impulse duration. The frequency can be regulated between 36 and 230 cps and the duration of the impulses between 0.4 and 1.4 microseconds. The impulses are charged in the amplifier with equal current (34 volts maximum and can be increased continuously. The incoming supply of the machine is 220 volts but the output is only 34 volts. For the patient this is completely safe. The strength of the current between 1 - 1.5 milliamps is controlled by the measuring instrument.

The whole machine, to which 2 patients can be connected simultaneously is no bigger than a transistor table radio. The new 4-lead machine is especially suitable for clinical use. For control of the electrical impulse the machine can be connected to an oscillograph, which shows the physician the duration of the impulse, its frequency and intensity.

The electrical impulses are passed to the patients by 4 electrodes in the half-masks. Two of these are situated above the eyes, and two in the band around the back of the head. The electrodes consist of a dense gold-covered copper wire netting. To ensure good contact with the skin the electrodes are covered very frequently by wet strips. The bands of the masks press the electrodes lightly to the eye lids or the back of the head. The masks themselves can adapt to any shape of head. While the machines are operating the patient feels a slight tingling under the 4 electrodes which soon disappears. The best results are obtained at a frequency of 1000* cps and an impulse duration of 1 microsecond.

During treatment the patient sleeps an average of 1 to 2 hours during which time he is connected to the current circuit. Most fall asleep after 10 minutes, others need one-half hour or more. Some patients state later that they did not sleep at all.

1001 uses of electrical sleep

The length of therapy is governed by an electric timer. After the machine is disconnected the patients do not wake up immediately but after some time, which is different in each case. In spite of the relatively short sleep

*Translator's note: Either this figure or the aforementioned 230 cps is a misprint.

the patient feels refreshed, rested and full of energy.

During artificially induced electrical sleep the blood vessels dilate and contract rhythmically. This gives a sort of exercise to the blood vessels. This was a vital factor in the treatment of insomnia and in the duration of the sleep, and also with headaches, hibernation, certain types of epilepsy and especially in "manager's disease" in any of its multiple appearances. Good results were obtained in the treatment of impaired circulation, neurosis, bronchial asthma, psychopathic diseases, toxemia of pregnancy, hypertension, dermatoses with itching, hypochondria, neurocirculatory asthenia and also gave relief after surgery.

Astronaut Titov slept by artificial sleep

The electrotherapy of sleep was applied up until the present only in the U.S.S.R. In August, 1961, the news that the Astronaut German Titov slept deeply for 8 hours during his flight in the orbital capsule sounded exaggerated. Today it is known that Titov was connected to the electrical sleeping machine.

In Graz they have big plans for sleep electrotherapy. There are blueprints for a large electrical sleeping station. A round building is divided into separate cubicles for treatments, above which a control center is situated to supervise the treatments. Unfortunately this project is not well backed financially.